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(54) WAX COMPOSITIONS FOR WATER-FREE, LIQUID, TEMPORARY ANTI-CORROSIVES

- (71) We, **FARBWERKE HOECHST AKTIENGESELLSCHAFT**, vormals **Meister Lucius & Brüning**, a Body Corporate recognised under German Law, of 6230 Frankfurt (M)-Hoechst, Germany, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:
- 10 The present invention provides a process for protecting an object temporarily from corrosion, which comprises coating the surface of the object with a solution or dispersion in an organic solvent or dispersion medium
- 15 of a wax composition comprising:
- (a) 1 part by weight of a branched chain fatty acid containing from 24 to 60 carbon atoms, obtained by oxidising the corresponding "Guerbet" primary alcohol containing
- 20 24 to 60 carbon atoms, and/or an alkali metal or alkaline earth metal salt of such an acid, and
- (b) up to 7.5 parts by weight of a paraffin that has a melting point above 70° C, and/or
- 25 a polyolefin wax that has a mean molecular weight below 20,000, and/or an ozocerite.
- Component (a) of the wax composition used in accordance with the invention is preferably a branched chain wax acid that contains from 24 to 60 carbon atoms and has been obtained by oxidising the corresponding "Guerbet" condensation product, 70% to
- 30 100% of which acid is neutralized by one or more alkali metal or alkaline earth metal oxides or hydroxides.
- The wax compositions used in the process of the invention are described in U.K. Patent Specification No. 1,111,595.
- 40 The process of the invention is useful for the temporary protection of the bottom plates of motor cars, for the temporary protection of motor cars against corrosion and for the preservation of vessels.

As compared with the temporary anti-corrosives employed heretofore, which are mostly based on bitumen, the wax compositions used according to the invention have, with the same thickness of the applied coating, the advantage of being colourless, which is very desirable to avoid discolourations of the coatings, an improved stability at low temperatures, a considerably improved weather resistance and a higher corrosion prevention, this latter property, naturally, being the most important one. The said wax compositions are advantageously applied in the form of solutions or dispersions of 5% to 40% by weight strength, preferably 10% to 20% by weight strength, in organic diluents, advantageously in diluents which do not affect the coatings so as to afford a wide range of application. Suitable diluents are, therefore, in particular liquid, aliphatic and aromatic hydrocarbons, especially benzines which contain aromatics only to a small degree.

The application of the wax solutions or dispersions on the parts to be protected may be effected in known manner by brushing, dipping or spraying.

The advantages derived by using the proposed temporary anti-corrosives rather than bitumen are shown in the following Example which illustrates the invention:

EXAMPLE.

From a benzinic solution of 25% by weight strength, a coating having a thickness of 50 microns was applied to sheet iron from a wax composition according to the invention and from bitumen 85/25, respectively. The suffix "85/25" refers to the softening point 85° C (measured by the ring and ball method) and hardness (measured by needle penetration).

The sheet iron thus coated had the following properties.

	Wax composition according to the invention	Bitumen 85/25
Colour	colourless, slightly opaque	black
Temperature stability	-35° to +90°C.	-10° to +90°C
Salt-spray test (DIN 50907)	resistant during 600 hours	resistant during 400 hours
Test according to Kesternich (DIN 50018)	12 rounds	8 rounds
Open-air weathering	resistant for more than one year	formation of cracks after 3 weeks

5 The wax composition consisted of 1.8 parts by weight of a calcium soap of the carboxylic acid obtained by the Guerbet condensation of stearyl alcohol and oxidation of the Guerbet alcohol so produced, 1.8 parts by weight of hard paraffin wax (solidification point above 95° C), 0.7 part by weight of a polyethylene wax, 6.2 parts by weight of a cake paraffin 10 (solidification point 52/54° C) and 1.5 parts by weight of an ozocerite.

WHAT WE CLAIM IS:—

15 1. A process for the temporary protection of an object from corrosion, which comprises coating the surface of the object with a solution or dispersion in an organic solvent or dispersion medium of a wax composition comprising

20 (a) 1 part by weight of a branched chain fatty acid containing from 24 to 60 carbon atoms, obtained by oxidising the corresponding "Guerbet" primary alcohol containing 24 to 60 carbon atoms, and/or an alkali metal or alkaline earth metal salt of such an acid, 25 and

(b) up to 7.5 parts by weight of a paraffin that has a melting point above 70° C, and/or a polyolefin wax that has a mean molecular weight below 20,000, and/or an ozocerite.

30 2. A process as claimed in claim 1, wherein component (a) of the wax composition is a branched chain fatty acid containing 24 to 60 carbon atoms, obtained by oxidising the

corresponding "Guerbet" primary alcohol containing 24 to 60 carbon atoms, 70% to 100% of which acid is neutralized by one or more alkali metal or alkaline earth metal oxides or hydroxides. 35

3. A process as claimed in claim 1 or claim 2, wherein the wax composition is applied to the surface in the form of a solution or dispersion of strength from 5% to 40% by weight. 40

4. A process as claimed in claim 3, wherein the wax composition is applied to the surface in the form of a solution or dispersion of strength from 10% to 20% by weight. 45

5. A process as claimed in any one of claims 1 to 4, wherein the organic solvent or dispersion medium for the wax composition is a liquid, aliphatic or aromatic hydrocarbon. 50

6. A process as claimed in claim 5, wherein the organic solvent or dispersion medium for the wax composition is a benzene.

7. An article whenever protected from corrosion by a process as claimed in any one of claims 1 to 6. 55

8. A motor car or vessel whenever protected from corrosion by a process as claimed in any one of claims 1 to 6.

ABEL & IMRAY,
Chartered Patent Agents,
Quality House,
Quality Court,
Chancery Lane,
London, W.C.2.